



NM OIL CONSERVATION
ARTESIA DISTRICT

JUL 28 2017

7821 Will Rogers Blvd.
Fort Worth, Texas 76140

817.568.1038 (office)
817.568.1499 (fax)
www.msenergyservices.com

RECEIVED

Survey Company: MS Energy Services
MWD Surveyor Name: Chris Morasch
Survey Type: MWD
Operating Company: Matador Production Co.
Well Name & Number: B Banker 33-23S-28E RB 206H
API Number: 30-015-43842
Surveyed Depths: 147' – 15,278' MD; PTB: 15,349'
Dates Performed: 04/15/2017 – 05/05/2017
Location: Eddy County, NM
Job Number: DDMO-170334

I certify that the data is true, correct and complete and within the limitations of the tool set forth by MS Energy Services; that I am authorized and qualified to make this report and that I have reviewed this report and find it conforms to the principles and procedures as set forth by MS Energy Services.

Digitally signed by: Christopher Morasch
Title: MWD Field Specialist
Date: 05-13-2017
Email: cmorasch@msenergyservices.com



SURVEY CALCULATION PROGRAM

5/12/17 16:25

Company:	Matador Production Co.
Well Name:	B Banker 33-23S-28E RB 206H
Location:	Eddy County, NM
Rig:	Patterson #810
Job Number:	DDMO-170334
API #:	30-015-43842

REFERENCED TO GRID NORTH

Magnetic Declination: 7.14

Proposed Direction: 269.56

Vertical Section Azimuth:	269.56
Survey Calculation Method:	Minimum Curvature

#	Depth Feet	Inc		Azim		TVD		N/S		E/W		Surface		Distance		Closure		DLS/		BUR/	
		Feet	Degrees	Feet	Degrees	Feet	Degrees	Feet	Degrees	Feet	Degrees	Feet	Degrees	Feet	Degrees	Feet	Degrees	100	Feet	100'	Feet

TIE IN		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	147	1.30	62.20	146.99	0.78	1.48	0.78	1.48	0.78	1.48	0.78	-1.48	0.78	1.67	0.78	1.67	0.78	0.88	0.78	0.88	0.88
2	333	2.10	328.70	332.93	4.67	1.57	4.67	1.57	4.67	1.57	4.67	-1.61	4.67	4.93	4.67	4.93	4.67	1.36	4.67	1.36	0.43
3	447	1.00	338.50	446.89	7.38	0.12	7.38	0.12	7.38	0.12	7.38	-0.18	7.38	7.39	7.38	7.39	7.38	0.99	7.38	0.99	-0.96
4	612	0.90	3.70	611.87	10.02	-0.32	10.02	-0.32	10.02	-0.32	10.02	0.25	10.02	10.02	10.02	10.02	10.02	0.26	10.02	0.26	-0.06
5	794	0.70	235.40	793.86	10.81	-1.15	10.81	-1.15	10.81	-1.15	10.81	1.06	10.81	10.87	10.81	10.87	10.81	0.79	10.81	0.79	-0.11
6	983	1.10	217.80	982.83	8.72	-3.21	8.72	-3.21	8.72	-3.21	8.72	3.14	8.72	9.29	8.72	9.29	8.72	0.25	8.72	0.25	0.21
7	1,173	0.80	232.30	1172.81	6.47	-5.38	6.47	-5.38	6.47	-5.38	6.47	5.33	6.47	8.41	6.47	8.41	6.47	0.20	6.47	0.20	-0.16
8	1,363	0.40	236.10	1362.80	5.29	-6.98	5.29	-6.98	5.29	-6.98	5.29	6.93	5.29	8.75	5.29	8.75	5.29	0.21	5.29	0.21	-0.21
9	1,552	0.20	262.30	1551.79	4.88	-7.85	4.88	-7.85	4.88	-7.85	4.88	7.81	4.88	9.24	4.88	9.24	4.88	0.13	4.88	0.13	-0.11
10	1,742	0.40	180.70	1741.79	4.17	-8.19	4.17	-8.19	4.17	-8.19	4.17	8.15	4.17	9.19	4.17	9.19	4.17	0.22	4.17	0.22	0.11
11	1,932	2.60	129.40	1931.72	0.77	-4.86	0.77	-4.86	0.77	-4.86	0.77	4.86	0.77	4.92	0.77	4.92	0.77	1.25	0.77	1.25	1.16
12	2,122	3.40	129.30	2121.46	-5.53	2.83	-5.53	2.83	-5.53	2.83	-5.53	-2.78	-5.53	6.21	-5.53	6.21	-5.53	0.42	-5.53	0.42	0.42
13	2,313	4.60	120.90	2311.99	-13.05	13.78	-13.05	13.78	-13.05	13.78	-13.05	-13.68	13.78	18.98	-13.05	18.98	-13.05	0.70	-13.05	0.70	0.63
14	2,503	4.10	127.60	2501.44	-21.11	25.70	-21.11	25.70	-21.11	25.70	-21.11	-25.54	25.70	33.26	-21.11	33.26	-21.11	0.37	-21.11	0.37	-0.26
15	2,653	3.20	139.60	2651.14	-27.57	32.66	-27.57	32.66	-27.57	32.66	-27.57	-32.45	32.66	42.74	-27.57	42.74	-27.57	0.78	-27.57	0.78	-0.60
16	2,789	2.10	139.50	2786.99	-32.36	36.74	-32.36	36.74	-32.36	36.74	-32.36	-36.49	36.74	48.96	-32.36	48.96	-32.36	0.81	-32.36	0.81	-0.81
17	2,979	4.20	163.00	2976.70	-41.66	41.04	-41.66	41.04	-41.66	41.04	-41.66	-40.72	41.04	58.48	-41.66	58.48	-41.66	1.28	-41.66	1.28	1.11
18	3,170	5.90	175.60	3166.96	-58.14	43.84	-58.14	43.84	-58.14	43.84	-58.14	-43.39	43.84	72.81	-58.14	72.81	-58.14	1.06	-58.14	1.06	0.89
19	3,360	7.70	178.40	3355.62	-80.60	44.94	-80.60	44.94	-80.60	44.94	-80.60	-44.32	44.94	92.28	-80.60	92.28	-80.60	0.96	-80.60	0.96	0.95
20	3,551	7.80	175.00	3544.87	-106.30	46.43	-106.30	46.43	-106.30	46.43	-106.30	-45.61	46.43	116.00	-106.30	116.00	-106.30	0.25	-106.30	0.25	0.05
21	3,741	6.40	177.00	3733.41	-129.72	48.10	-129.72	48.10	-129.72	48.10	-129.72	-47.11	48.10	138.35	-129.72	138.35	-129.72	0.75	-129.72	0.75	-0.74
22	3,932	8.00	171.80	3922.90	-153.51	50.56	-153.51	50.56	-153.51	50.56	-153.51	-49.38	50.56	161.62	-153.51	161.62	-153.51	0.90	-153.51	0.90	0.84
23	4,122	7.70	168.90	4111.12	-179.09	54.89	-179.09	54.89	-179.09	54.89	-179.09	-53.52	54.89	187.31	-179.09	187.31	-179.09	0.26	-179.09	0.26	-0.16
24	4,312	7.20	166.10	4299.52	-203.13	60.21	-203.13	60.21	-203.13	60.21	-203.13	-58.64	60.21	211.87	-203.13	211.87	-203.13	0.33	-203.13	0.33	-0.26
25	4,502	6.90	166.30	4488.08	-225.78	65.77	-225.78	65.77	-225.78	65.77	-225.78	-64.03	65.77	235.16	-225.78	235.16	-225.78	0.16	-225.78	0.16	-0.16
26	4,692	5.80	166.70	4676.91	-246.21	70.68	-246.21	70.68	-246.21	70.68	-246.21	-68.79	70.68	256.16	-246.21	256.16	-246.21	0.58	-246.21	0.58	-0.58
27	4,883	4.20	168.50	4867.18	-262.46	74.30	-262.46	74.30	-262.46	74.30	-262.46	-72.28	74.30	272.77	-262.46	272.77	-262.46	0.84	-262.46	0.84	-0.84
28	5,073	4.70	166.70	5056.61	-276.85	77.47	-276.85	77.47	-276.85	77.47	-276.85	-75.34	77.47	287.49	-276.85	287.49	-276.85	0.27	-276.85	0.27	0.26
29	5,263	4.30	169.70	5246.02	-291.44	80.54	-291.44	80.54	-291.44	80.54	-291.44	-78.30	80.54	302.36	-291.44	302.36	-291.44	0.24	-291.44	0.24	-0.21
30	5,453	3.20	165.00	5435.61	-303.57	83.18	-303.57	83.18	-303.57	83.18	-303.57	-80.85	83.18	314.76	-303.57	314.76	-303.57	0.60	-303.57	0.60	-0.58
31	5,643	2.60	165.40	5625.37	-312.86	85.64	-312.86	85.64	-312.86	85.64	-312.86	-83.24	85.64	324.37	-312.86	324.37	-312.86	0.32	-312.86	0.32	-0.32
32	5,834	0.90	189.00	5816.27	-318.53	86.50	-318.53	86.50	-318.53	86.50	-318.53	-84.05	86.50	330.07	-318.53	330.07	-318.53	0.95	-318.53	0.95	-0.89
33	6,024	0.20	45.90	6006.27	-319.78	86.50	-319.78	86.50	-319.78	86.50	-319.78	-84.05	86.50	331.27	-319.78	331.27	-319.78	0.56	-319.78	0.56	-0.37



5/12/17 16:25

REFERENCED TO GRID NORTH

Proposed Direction:	269.56
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1

TVD	N/S
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10514.67	-482.05
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E/W	Surface
1	1
2	2
3	3
4	4
5	5
6	6
7	7
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9	9
10	10
11	11
12	12
13	13
14	14
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89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

Feet	Vert Sec
96.70	03.03

66.79	-03.03
82.88	-80.42

02.00	-00.42
78.91	-76.47

78.88	-76.44
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85.77	-83.31
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95.36
-92.89

	100.59	-98.11
1	100.59	-98.11
2	100.59	-98.11
3	100.59	-98.11
4	100.59	-98.11
5	100.59	-98.11
6	100.59	-98.11
7	100.59	-98.11
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72	100.59	-98.11
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79	100.59	-98.11
80	100.59	-98.11
81	100.59	-98.11
82	100.59	-98.11
83	100.59	-98.11
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93	100.59	-98.11
94	100.59	-98.11
95	100.59	-98.11
96	100.59	-98.11
97	100.59	-98.11
98	100.59	-98.11
99	100.59	-98.11
100	100.59	-98.11

	-98.99
	101.45

100.97	-98.53
100.74	100.26

102.71	-100.26
105.22	102.78

103.22
-102.78
106.62
-104.19

106.95
-104.53

107.57
-105.16

110.20	-107.79
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111.88	-109.48
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[illegible]

109.10	-106.70
107.31	104.91

107.31	-104.91
105.66	-103.23

103.00	-103.23
104.21	-101.76

104.27	104.27
100.40	100.40
-97.95	-97.95
104.27	104.27

90.91
-88.44

77.43	-74.96
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60.12	-57.64
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39.16	-36.66
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15.85	-13.33
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	Mean	SD	Min	Max
Age	60.78	9.00	45	75
Gender	1.00	0.00	1	1
Marital status	1.00	0.00	1	1
Education	12.47	2.52	9	16
Income	-9.92	5.00	-15	5

-37.28
39.86

-68.01	70.62
100.72	103.35

-100.72	103.33
137.10	139.76

-137.10	139.70
-173.89	176.58

-213.37	216.10
-113.33	113.33

Page 2



SURVEY CALCULATION PROGRAM

5/12/17 16:25

Company:	Matador Production Co.
Well Name:	B Banker 33-23S-28E RB 206H
Location:	Eddy County, NM
Rig:	Patterson #810
Job Number:	DDMO-170334
API #:	30-015-43842

REFERENCED TO GRID NORTH

Magnetic Declination: 7.14

Vertical Section Azimuth:	269.56	Proposed Direction:	269.56
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Survey Calculation Method:

Minimum Curvature

PTB:

MD

15,349

INC

90.6

TVD

Feet

N/S

Feet

AZM

266.4

TVD

Feet

E/W

10514.67

Surface

Vert Sec

N/S

-482.05

Distance

Azim

Closure

E/W

-4964.31

VS

4967.87

DLS/

100

BUR/

100'

#

Depth

Feet

Inc

Degrees

Azm

Degrees

TVD

Feet

N/S

Feet

AZM

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4967.87

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4967.87

DLS/

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Azm

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N/S

Feet

AZM

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Degrees

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Degrees

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Feet

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Feet

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Feet

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Vert Sec

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Distance

Azim

Closure

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VS

4967.87

DLS/

100

BUR/

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Depth

Feet

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Degrees

Azm

Degrees

TVD

Feet

N/S

Feet

AZM

266.4

TVD

Feet

E/W

10514.67

Surface

Vert Sec

N/S

-482.05

Distance

Azim

Closure

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-4964.31

VS

4967.87

DLS/

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BUR/

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Depth

Feet

Inc

Degrees

Azm

Degrees

TVD

Feet

N/S

Feet

AZM

266.4

TVD

Feet

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Surface

Vert Sec

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Distance

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E/W

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4967.87

DLS/

100

BUR/

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Depth

Feet

Inc

Degrees

Azm

Degrees

TVD

Feet

N/S

Feet

AZM

266.4

TVD

Feet

E/W

10514.67

Surface

Vert Sec

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-482.05

Distance

Azim

Closure

E/W

-4964.31

VS

4967.87

DLS/

100

BUR/

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Depth

Feet

Inc

Degrees

Azm

Degrees

TVD

Feet

N/S

Feet

AZM

266.4

TVD

Feet

E/W

10514.67

Surface

Vert Sec

N/S

-482.05

Distance

Azim

Closure

E/W

-4964.31



V09 04.02

SURVEY CALCULATION PROGRAM

5/12/17 16:25

Company:	Matador Production Co.
Well Name:	B Banker 33-23S-28E RB 206H
Location:	Eddy County, NM
Rig:	Patterson #810
Job Number:	DDMO-170334
API #:	30-015-43842

REFERENCED TO GRID NORTH

Magnetic Declination:	7.14
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Proposed Direction:	269.56
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Vertical Section Azimuth:	269.56
Survey Calculation Method:	Minimum Curvature

PTB:	MD		INC	AZM		TVD		N/S		E/W		VS	
	15,349			266.4	10514.67	-482.05	-4964.31	4967.87					
#	Depth Feet	Inc		Azimuth		TVD		N/S		E/W		DLS/ BUR/	
		Degrees	Degrees	Degrees	Degrees	Feet	Feet	Surface Vert Sec	Distance	Azimuth	100	100'	
102	13,660	90.50	265.80	10555.19	-435.43	-3277.31	3280.55	3306.11	262.43	2.84	-1.79		
103	13,754	91.20	264.40	10553.79	-443.46	-3370.95	3374.25	3399.99	262.51	1.67	0.74		
104	13,848	92.30	266.10	10550.92	-451.24	-3464.58	3467.94	3493.84	262.58	2.15	1.17		
105	13,942	92.60	269.80	10546.90	-454.60	-3558.41	3561.80	3587.34	262.72	3.95	0.32		
106	14,037	91.80	268.60	10543.26	-455.92	-3653.33	3656.73	3681.67	262.89	1.52	-0.84		
107	14,131	91.70	268.70	10540.39	-458.14	-3747.26	3750.67	3775.17	263.03	0.15	-0.11		
108	14,225	90.70	269.40	10538.42	-459.70	-3841.23	3844.64	3868.64	263.18	1.30	-1.06		
109	14,319	89.70	268.90	10538.09	-461.09	-3935.22	3938.64	3962.14	263.32	1.19	-1.06		
110	14,414	93.20	271.10	10535.68	-461.09	-4030.16	4033.59	4056.46	263.47	4.35	3.68		
111	14,508	90.40	268.60	10532.73	-461.34	-4124.10	4127.52	4149.82	263.62	3.99	-2.98		
112	14,603	91.20	270.10	10531.41	-462.42	-4219.08	4222.51	4244.35	263.75	1.79	0.84		
113	14,697	90.90	269.80	10529.68	-462.50	-4313.07	4316.49	4337.79	263.88	0.45	-0.32		
114	14,792	92.60	268.10	10526.78	-464.24	-4408.00	4411.43	4432.38	263.99	2.53	1.79		
115	14,886	89.20	266.50	10525.31	-468.66	-4501.87	4505.33	4526.20	264.06	4.00	-3.62		
116	14,980	91.40	269.60	10524.81	-471.86	-4595.79	4599.28	4619.95	264.14	4.04	2.34		
117	15,075	93.40	270.20	10520.83	-472.03	-4690.70	4694.19	4714.39	264.25	2.20	2.11		
118	15,169	91.90	269.10	10516.49	-472.60	-4784.60	4788.09	4807.88	264.36	1.98	-1.60		
119	15,264	89.40	266.00	10515.41	-476.66	-4879.49	4883.00	4902.71	264.42	4.19	-2.63		
120	15,278	90.60	266.40	10515.41	-477.59	-4893.45	4896.98	4916.71	264.43	9.04	8.57		
PTB:	15,349	90.60	266.40	10514.67	-482.05	-4964.31	4967.87	4987.66	264.45	0.00	0.00		